AMENDMENTS TO THE SPECIFICATION

In the Specification

Please substitute the following amended paragraph(s) and/or section(s) (deleted matter is shown by strikethrough and added matter is shown by underlining):

Page 1, line 3, please add the following header:

FIELD OF THE INVENTION

Page 1, line 14, please add the following header:

BACKGROUND OF THE INVENTION

Page 3, line 3, please add the following header:

SUMMARY OF THE INVENTION

Page 3, line 29 – line 38, please amend the paragraph as follows:

According to the invention, a cut advancement is now effected alternately at the posterior and the anterior surface. This concept allows ~~to avoid~~ avoidance of high adjustment speeds of the focal point along the optical axis, in spite of a constant cutting speed. Since such adjustment is conveniently effected by an adjustable telescope, the mechanical demands made on the optical system by the control unit according to the invention or by the method according to the invention are thus ~~strongly~~ greatly reduced. Since the focal point is adjusted along a spiral or along elevation lines, the reversal points required in the prior art, which necessitated a high adjustment

speed at the transition from the posterior to the anterior partial surface of the cut, are no longer present. Instead, an almost mono-frequent or very narrow-band adjustment can be worked with in the direction of the optical axis.

Page 4, line 1 – line 17, please amend the paragraph as follows:

When generating the cut by serial arrangement of optical breakthroughs, it should be borne in mind that, in some cases, the generation of a breakthrough behind an already generated breakthrough is possible only in very poor quality and sometimes not at all~~, because a~~ . A cut generated anteriorly on the optical axis may result in scattering effects which affect the beam quality of the laser beam, as it passes through, such that no desired breakthrough is possible posteriorly any more. Therefore, care should be taken to avoid a situation in which an anterior cut covers a posterior site at which an optical breakthrough is to be generated. This can be achieved by beginning to generate optical breakthroughs on each elevation line or on the posterior part on the spiral. In addition, it may be ensured that the main axis to which the spiral is related is not, relative to the optical axis, which also applies to the parallelism of the planes of the elevation lines and the optical axis. A deviation just great enough to cause an anterior focus trace to be located just next to the immediately adjacent posterior extension, is sufficient. Thus, the angular deviation may be very small; therefore, such deviation shall be covered by the terms “at substantially right angles“ or "substantially parallel". Thus, the main axis [[or]] of the planes coincide(s) with an axis that is perpendicular to the optical axis or enclose(s) an acute angle therewith.

Page 5, line 1, please add the following header:

BRIEF DESCRIPTION OF THE DRAWINGS

Page 5, line 4 – line 20, please amend the paragraphs as follows:

Figure 1 ~~shows~~ is a perspective view of a patient during a laser-surgical treatment using a laser-surgical instrument,

Figure 2 ~~shows~~ depicts the focusing of a beam onto the eye of the patient with the instrument of Figure 1;

Figure 3 ~~shows~~ is a schematic representation illustrating a cut generated during laser-surgical treatment with the instrument of Figure 1;

Figure 4 ~~shows~~ is a deflection device of the laser-surgical instrument of Figure 1;

Figure 5 ~~shows~~ is an exemplary time behavior of a control function for controlling the line mirror of Figure 4,

Figure 6 ~~shows~~ is an exemplary time sequence for the control function of the image mirror of Figure 4,

Figure 7 ~~shows~~ is an exemplary time sequence for controlling the zoom optics of Figure 2,

Figure 8 shows views depicting how a cut is guided in the y/x- or z/y-planes of the partial volume of Figure 3;

Figure 9 ~~shows~~ is a perspective view illustrating the focal point adjustment during forming of a curved, closed cut, and

Figure 10 ~~shows~~ is a perspective view similar to Figure 9.

Page 5, line 21, please add the following header:

DETAILED DESCRIPTION OF THE INVENTION

Page 6, line 17 – line 29, please amend the paragraph as follows:

On the one hand, lateral focus displacement according to one embodiment is effected by means of the deflecting unit 10, schematically shown in Figure 4, which deflects the laser beam 3 about two mutually perpendicular axes, said laser beam 3 being incident on the eye 1 on an optical axis A serving as the main axis. For this purpose, the deflecting unit 10 uses a line mirror 11 as well as an image mirror 12, thus resulting in two spatial axes of deflection which are located behind each other. The point where the main beam axis and the deflection axis cross is then the respective point of deflection. On the other hand, the ~~telescope~~ zoom optics 6 is suitably adjusted for ~~areal~~ focus displacement. This allows adjustment of the focus 7 along three orthogonal axes in the x/y/z coordinate system schematically shown in Figure 4. The deflecting unit 10 adjusts the focus in the x/y plane, with the line mirror allowing adjustment of the focus in the x-direction and the image mirror allowing adjustment of the focus in the y-direction. In contrast thereto, the ~~telescope~~ zoom optics 6 acts on the z-coordinate of the focus 7. All components of the instrument 2 are controlled by a control unit which is preferably incorporated into the instrument.

Page 6, line 31 – line 33, please amend the paragraph as follows:

If a cut, as shown in Figure 3, is vaulted in the same direction as the corneal surface, this may be achieved with an optical system whose image field curvature is similar to the curvature of the cornea, without the ~~guididing~~ guiding of the focus 7 having to reflect this.

Page 7, line 21 – line 23, please amend the paragraph as follows:

In order to adjust the focus 7 along the spatial spiral 22, the control unit of the instrument 2 applies the sin[[us]] function Fx shown in Figure 5 to the line mirror 11. Thus, the line mirror effects a reciprocating tilting oscillation.